



Fig.2

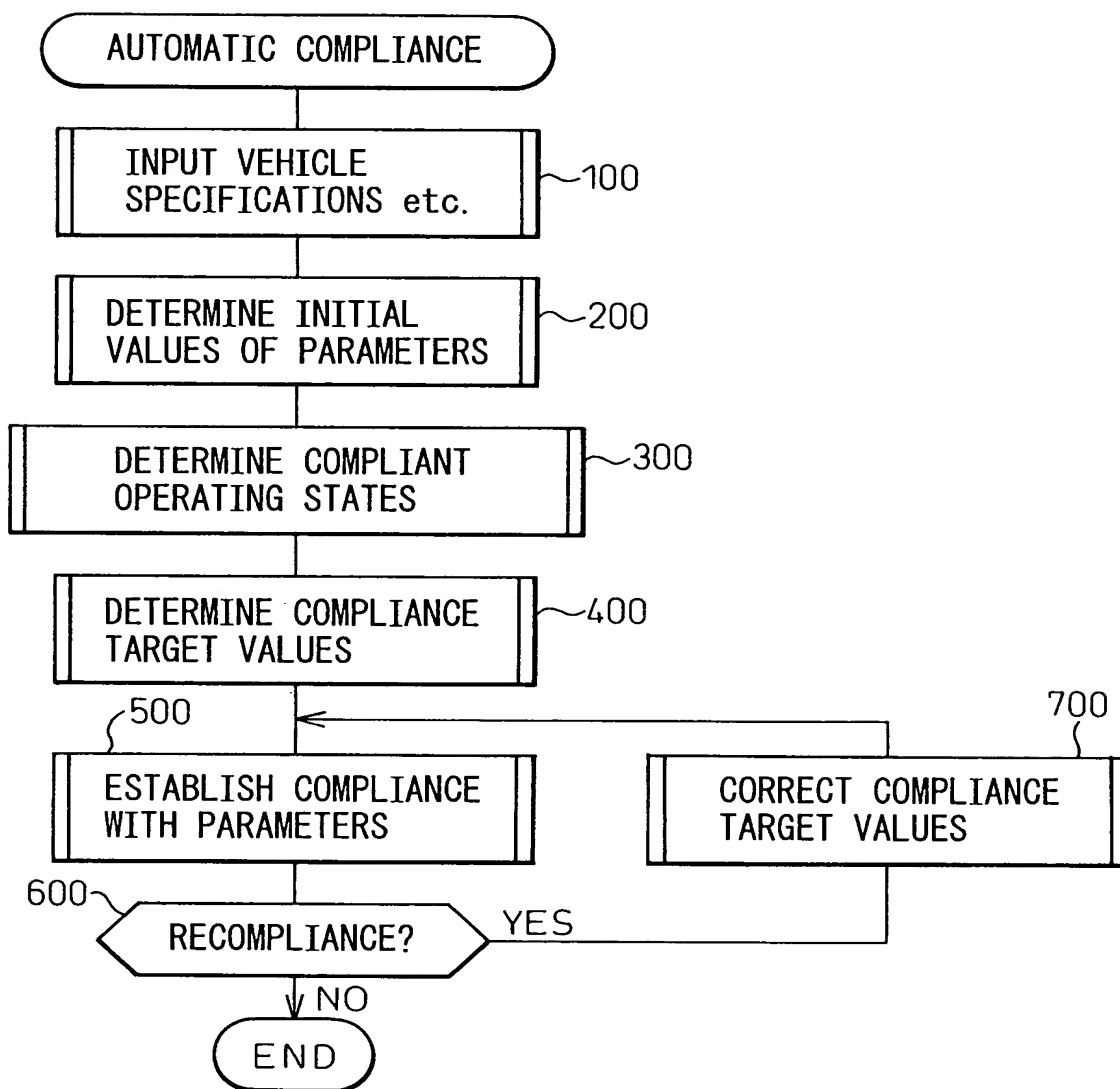


Fig. 3

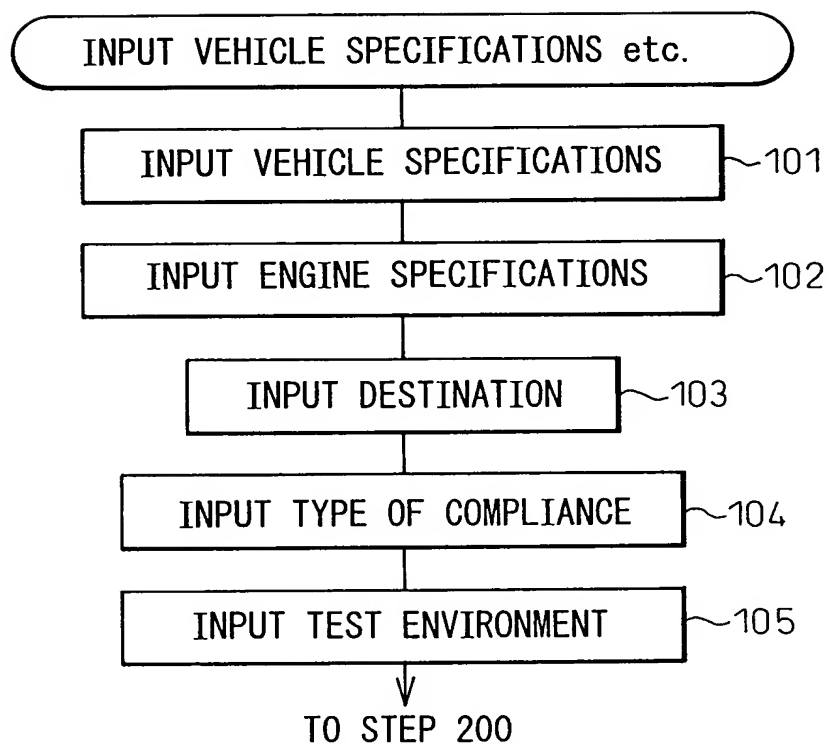


Fig.4

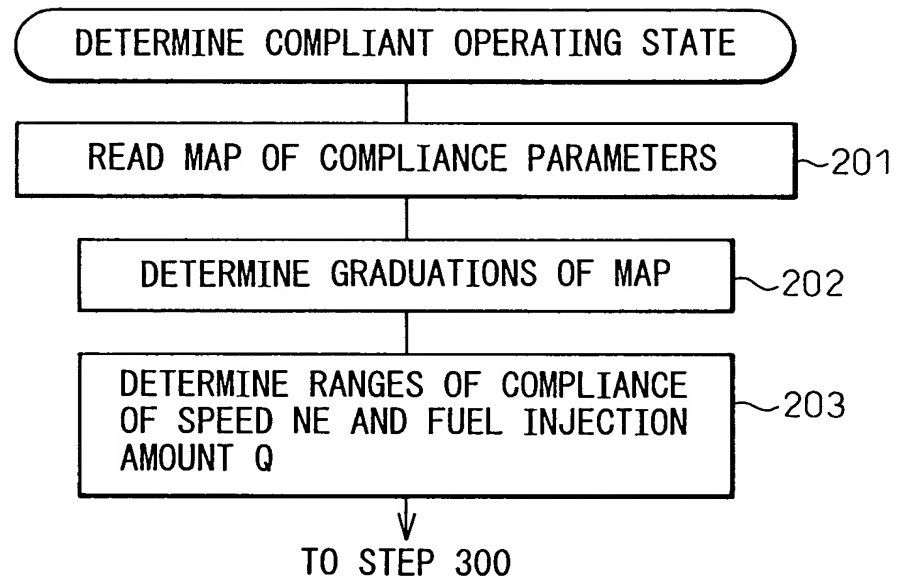


Fig.5

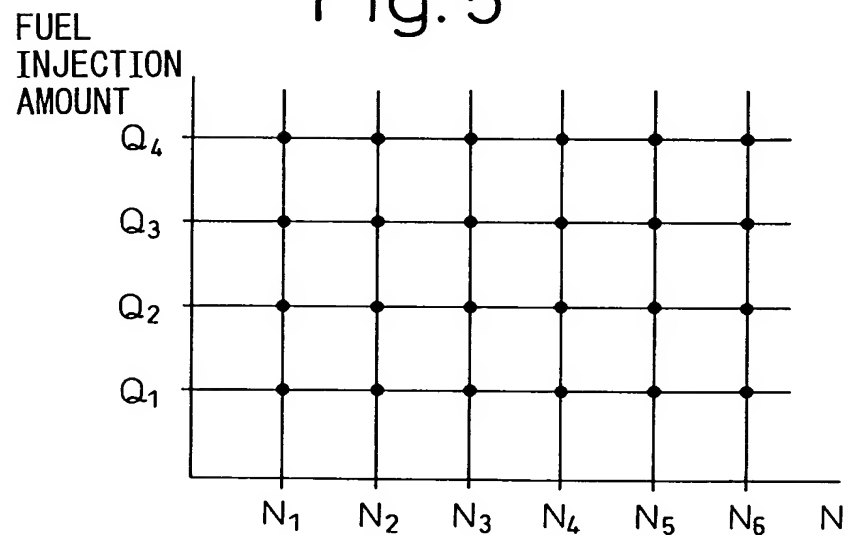


Fig.6

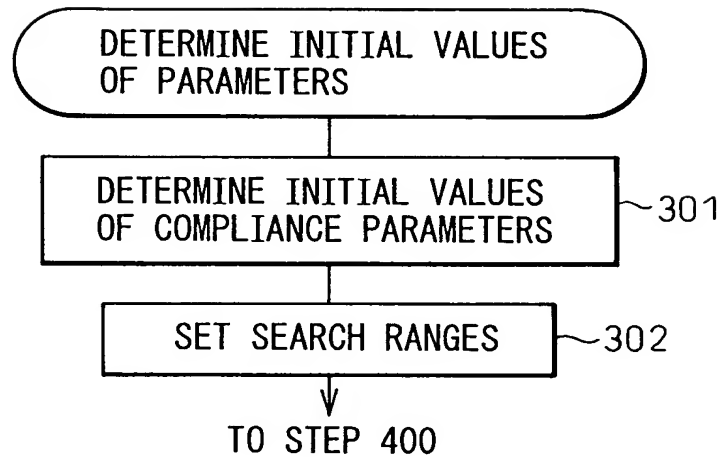


Fig.7

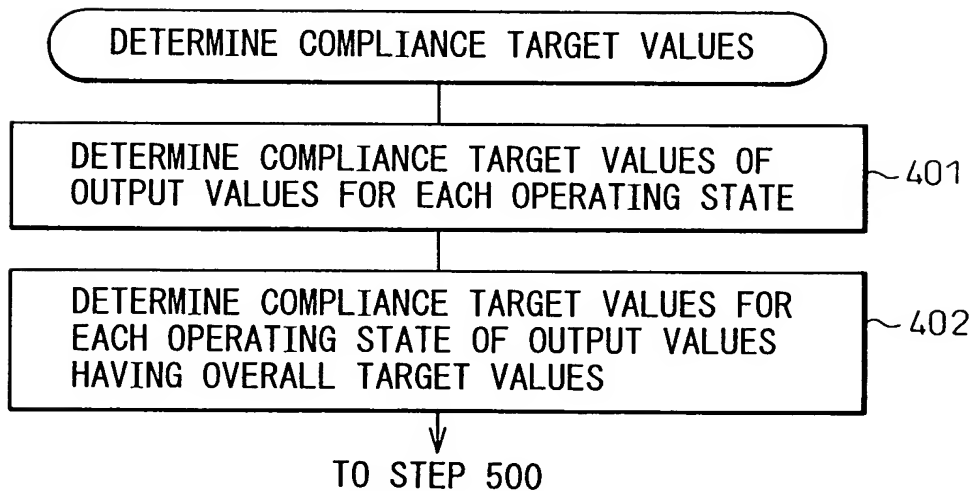


Fig.8A

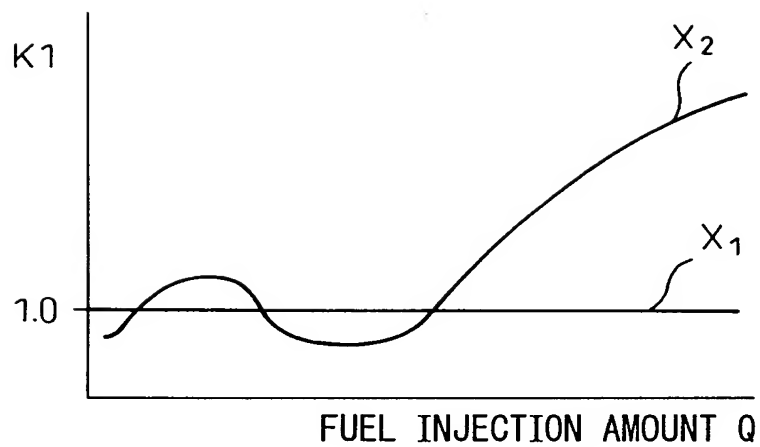


Fig.8B

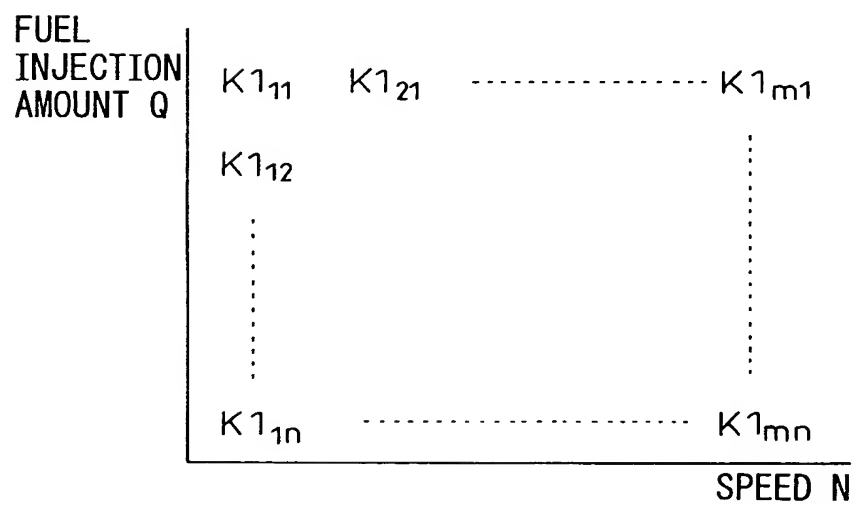


Fig.9

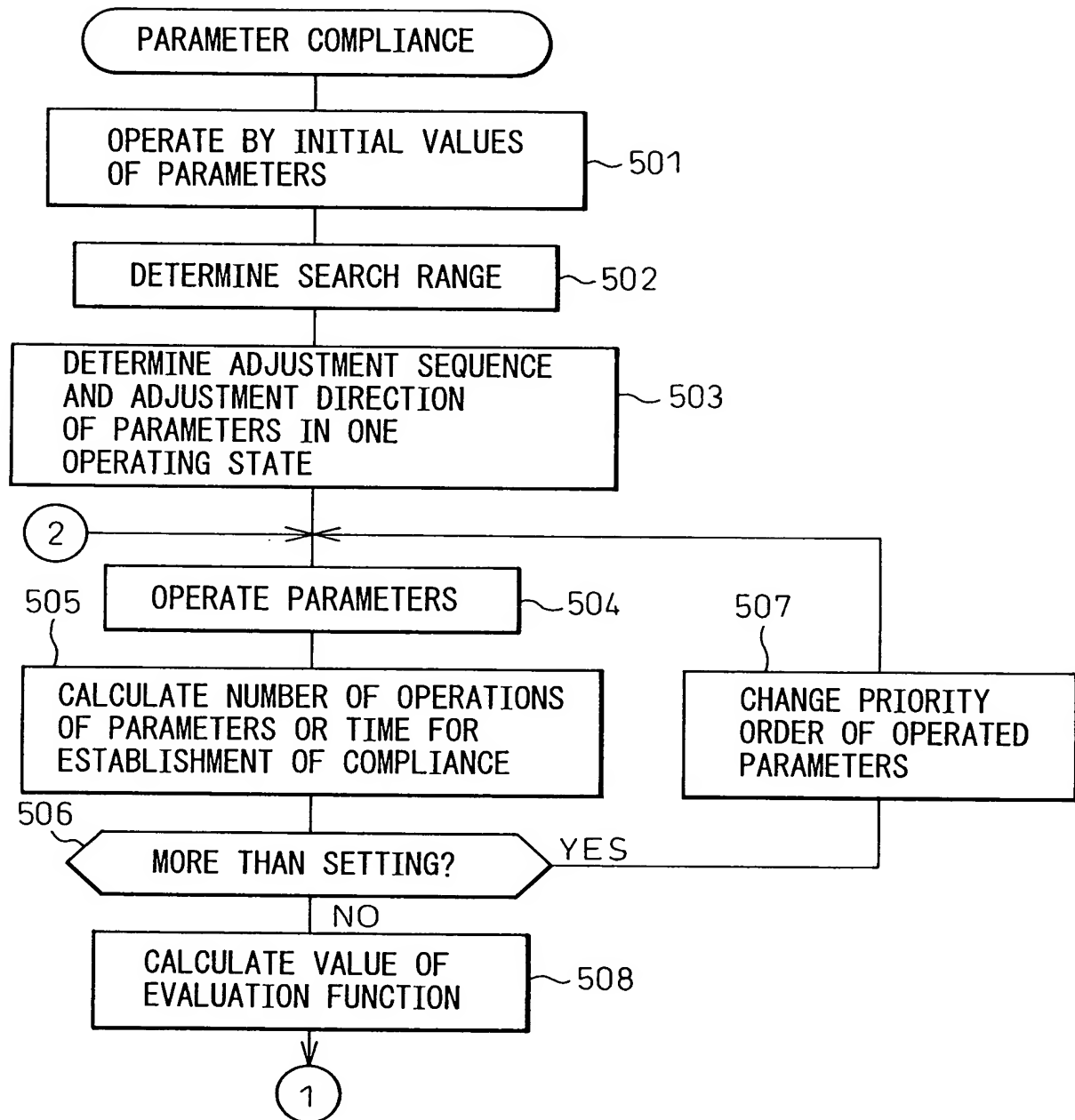


Fig.10

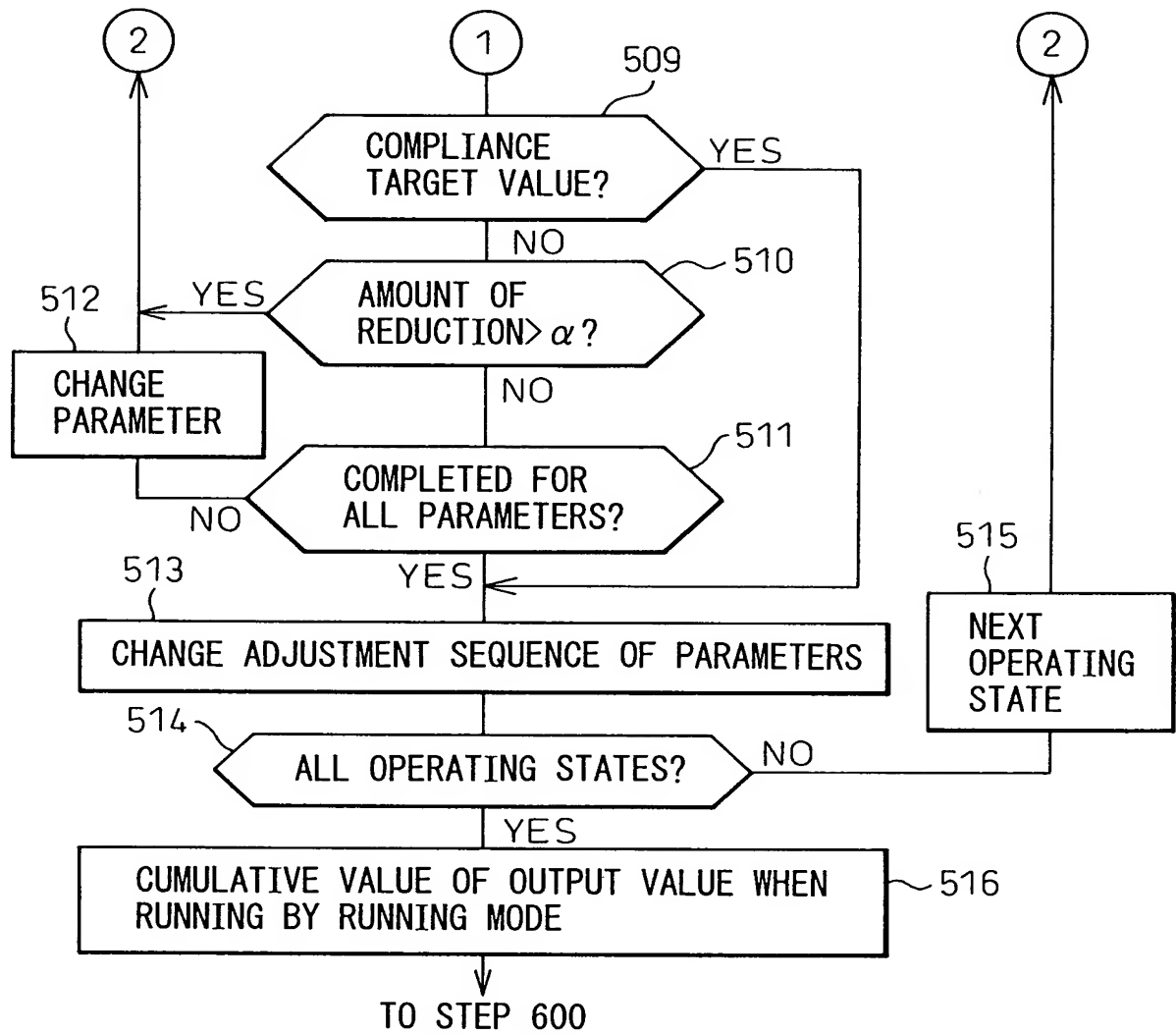




Fig.11

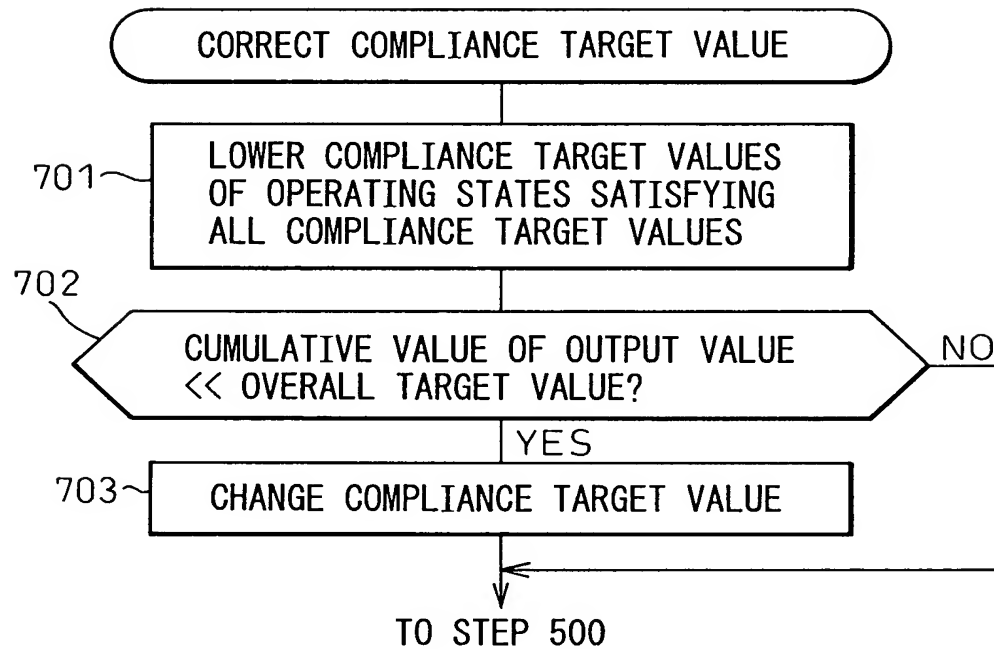


Fig.12

NO.	CONCENTRATION OF SMOKE	NOx	HC	COMBUSTION NOISE	MAIN INJECTION TIMING	PILOT INJECTION INTERVAL	PILOT INJECTION AMOUNT	COMMON RAIL PRESSURE	EGR CONTROL VALVE
1	1				[2] DELAY ADVANCE	[4] LARGE	[5] DECREASE	[3] INCREASE	[1] CLOSE
2		1			[2] DELAY	[4] LARGE/ SMALL	[5] DECREASE	[3] DECREASE	[1] OPEN
3			1		[2] BTDC: DELAY ATDC: ADVANCE	[4] SMALL	[5] DECREASE/ INCREASE	[2] INCREASE/ DECREASE	[3] CLOSE/ OPEN
4				1	[2] DELAY ADVANCE	[3] SMALL/ LARGE	[4] INCREASE/ DECREASE	[1] DECREASE	[5] OPEN

Fig. 13A

NO.	CONCENTRATION OF SMOKE	NOx	HC	COMBUSTION NOISE	MAIN INJECTION TIMING	PILOT INJECTION INTERVAL	PILOT INJECTION AMOUNT	COMMON RAIL PRESSURE	EGR CONTROL VALVE
1	DETERIORATION SEQUENCE 1	2	-	-	[1] DELAY ADVANCE	[2] LARGE/ SMALL	[3] DECREASE	[4] INCREASE	
2	2	1	-	-	[1] DELAY ADVANCE	[2] LARGE/ SMALL	[3] DECREASE	[4] DECREASE	
3	1	-	2	-	[1] BTDC: DELAY ADVANCE ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[5] DECREASE/ INCREASE	[3] INCREASE	[2] CLOSE
4	2	-	1	-	[1] BTDC: DELAY ADVANCE ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[5] DECREASE/ INCREASE	[3] INCREASE	[2] CLOSE

Fig. 13B

NO.	CONCENTRATION OF SMOKE	NOx	HC	COMBUSTION NOISE	MAIN INJECTION TIMING	PILOT INJECTION INTERVAL	PILOT INJECTION AMOUNT	COMMON RAIL PRESSURE	EGR CONTROL VALVE
5	1	-	-	2	[1] DELAY ADVANCE	[2] LARGE/ SMALL	[3] DECREASE/ INCREASE	[5] INCREASE	[4] CLOSE
6	2	-	-	1	[1] DELAY ADVANCE	[2] LARGE/ SMALL	[3] INCREASE/ DECREASE	[5] DECREASE	[4] CLOSE
7	-	1	2	-	[1] BTDC: DELAY ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[3] DECREASE/ INCREASE	[4] DECREASE	[5] OPEN
8	-	2	1	-	[1] BTDC: DELAY ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[3] DECREASE/ INCREASE	[4] DECREASE	[5] OPEN

Fig. 13C

NO.	CONCENTRATION OF SMOKE	NOx	HC	COMBUSTION NOISE	MAIN INJECTION TIMING	PILOT INJECTION INTERVAL	PILOT INJECTION AMOUNT	COMMON RAIL PRESSURE	EGR CONTROL VALVE
9	-	1	-	2	[1] BTDC: DELAY ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[5] INCREASE/ DECREASE	[3] DECREASE	[2] OPEN
10	-	2	-	1	[1] BTDC: DELAY ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[5] INCREASE/ DECREASE	[3] DECREASE	[2] OPEN
11	-	-	1	2	[1] BTDC: DELAY ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[5] INCREASE/ DECREASE	[4] DECREASE	
12	-	-	2	1	[1] BTDC: DELAY ATDC: ADVANCE DELAY	[2] LARGE/ SMALL	[5] INCREASE/ DECREASE	[4] DECREASE	

Fig.14

FUEL INJECTION AMOUNT \ SPEED	N <sub>1</sub>	N <sub>2</sub>	N <sub>3</sub>	N <sub>4</sub>	N <sub>5</sub>	N <sub>6</sub>	N <sub>7</sub>
Q <sub>1</sub>	×	×	×	×	×	×	×
Q <sub>2</sub>	×	×	×	×	×	×	×
Q <sub>3</sub>	○	○	○	○	○	○	○
Q <sub>4</sub>	○	○	○	○	○	○	○
Q <sub>5</sub>	○	○	○	○	○	○	○
Q <sub>6</sub>	○	○	○	○	○	○	○

Fig.15

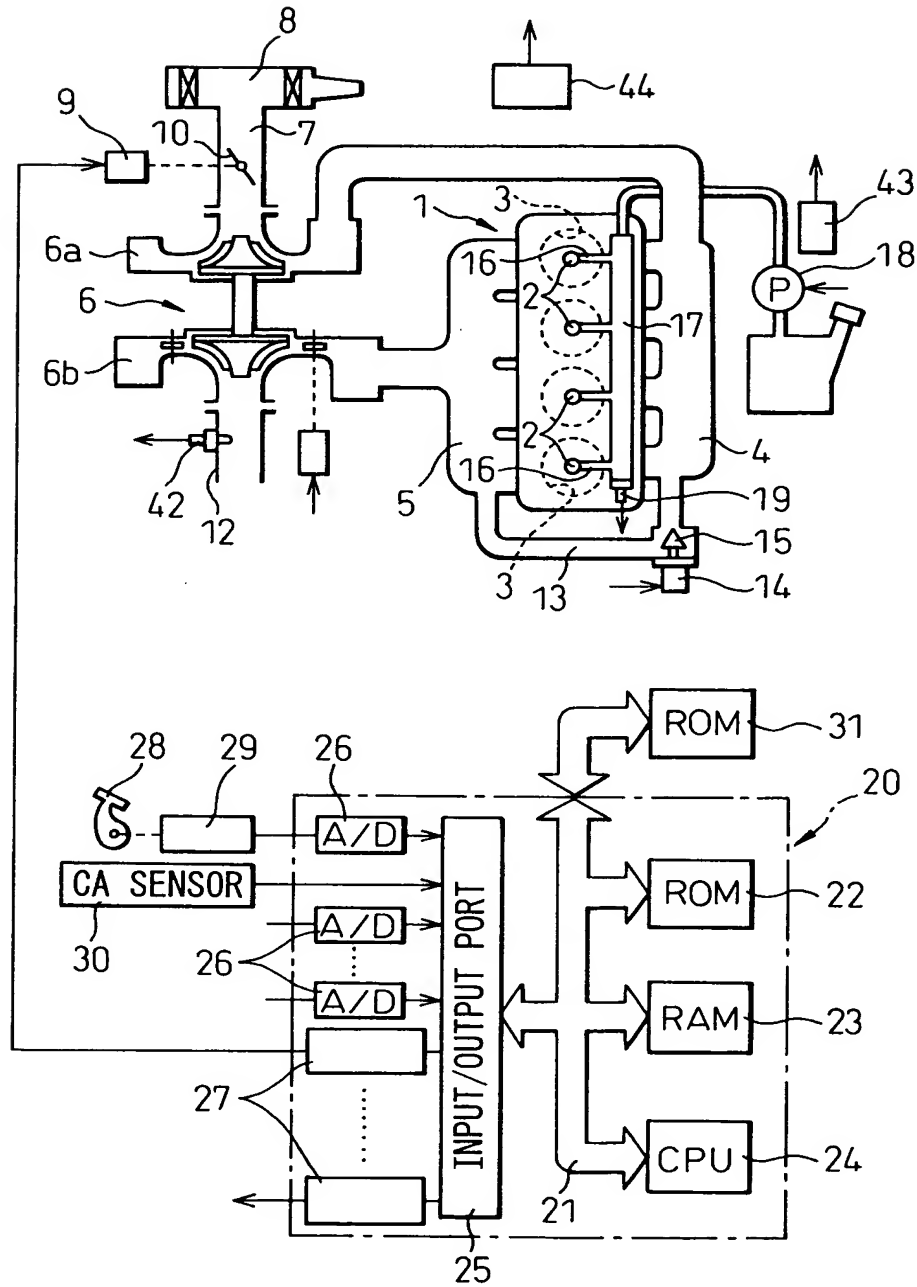


Fig.16

NO.	CONCENTRATION OF SMOKE	NOx	PILOT INJECTION INTERVAL	PILOT INJECTION AMOUNT	COMMON RAIL PRESSURE	EGR CONTROL VALVE
1	1		[4] INCREASE/ DECREASE	[3] INCREASE/ DECREASE	[2] INCREASE	[1] CLOSE
2		1	[4] INCREASE/ DECREASE	[3] INCREASE/ DECREASE	[2] DECREASE	[2] OPEN



Fig.17

ADJUSTMENT SEQUENCE	1		2		3	
	COVERAGE	DIRECTION	COVERAGE	DIRECTION	COVERAGE	DIRECTION
CONCENTRATION OF SMOKE	EGR CONTROL VALVE	CLOSE	COMMON RAIL PRESSURE	INCREASE	PILOT INJECTION AMOUNT	INCREASE
NOx	EGR CONTROL VALVE	OPEN	COMMON RAIL PRESSURE	DECREASE	PILOT INJECTION AMOUNT	INCREASE

ADJUSTMENT SEQUENCE	4		5		6	
	COVERAGE	DIRECTION	COVERAGE	DIRECTION	COVERAGE	DIRECTION
CONCENTRATION OF SMOKE	PILOT INJECTION AMOUNT	DECREASE	PILOT INJECTION INTERVAL	INCREASE	PILOT INJECTION INTERVAL	DECREASE
NOx	PILOT INJECTION AMOUNT	DECREASE	PILOT INJECTION INTERVAL	INCREASE	PILOT INJECTION INTERVAL	DECREASE

18/27

Fig.18A

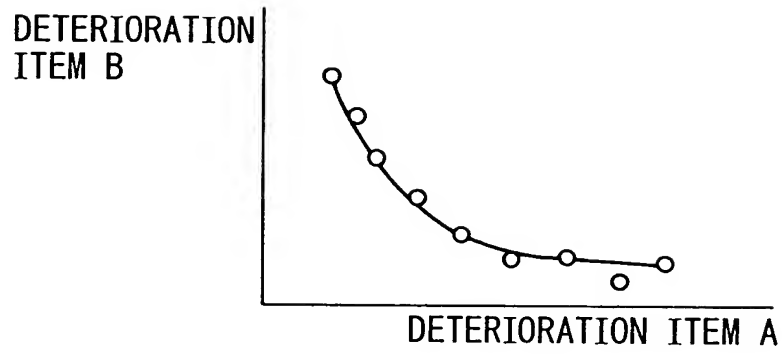


Fig.18B

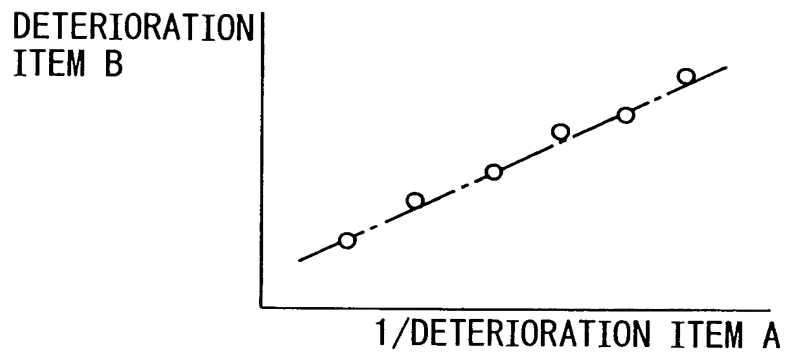


Fig.18C

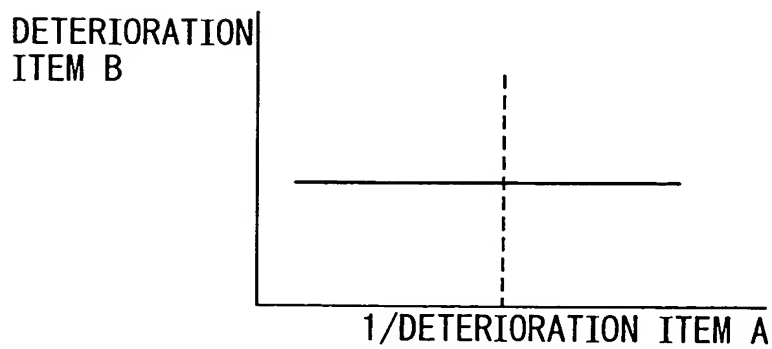


Fig.19

ADJUSTMENT SEQUENCE	1		2	
	COVERAGE	DIRECTION	COVERAGE	DIRECTION
SMOKE NO <sub>x</sub>	EGR CONTROL VALVE	CLOSE	EGR CONTROL VALVE	OPEN

ADJUSTMENT SEQUENCE	3		4	
	COVERAGE	DIRECTION	COVERAGE	DIRECTION
SMOKE NO <sub>x</sub>	COMMON RAIL PRESSURE	INCREASE	COMMON RAIL PRESSURE	DECREASE

Fig.20

ADJUSTMENT SEQUENCE	1		2	
	COVERAGE	DIRECTION	COVERAGE	DIRECTION
SMOKE NO <sub>x</sub>	PILOT INJECTION AMOUNT	INCREASE	PILOT INJECTION AMOUNT	DECREASE

ADJUSTMENT SEQUENCE	3		4	
	COVERAGE	DIRECTION	COVERAGE	DIRECTION
SMOKE NO <sub>x</sub>	PILOT INJECTION INTERVAL	INCREASE	PILOT INJECTION INTERVAL	DECREASE

Fig.21

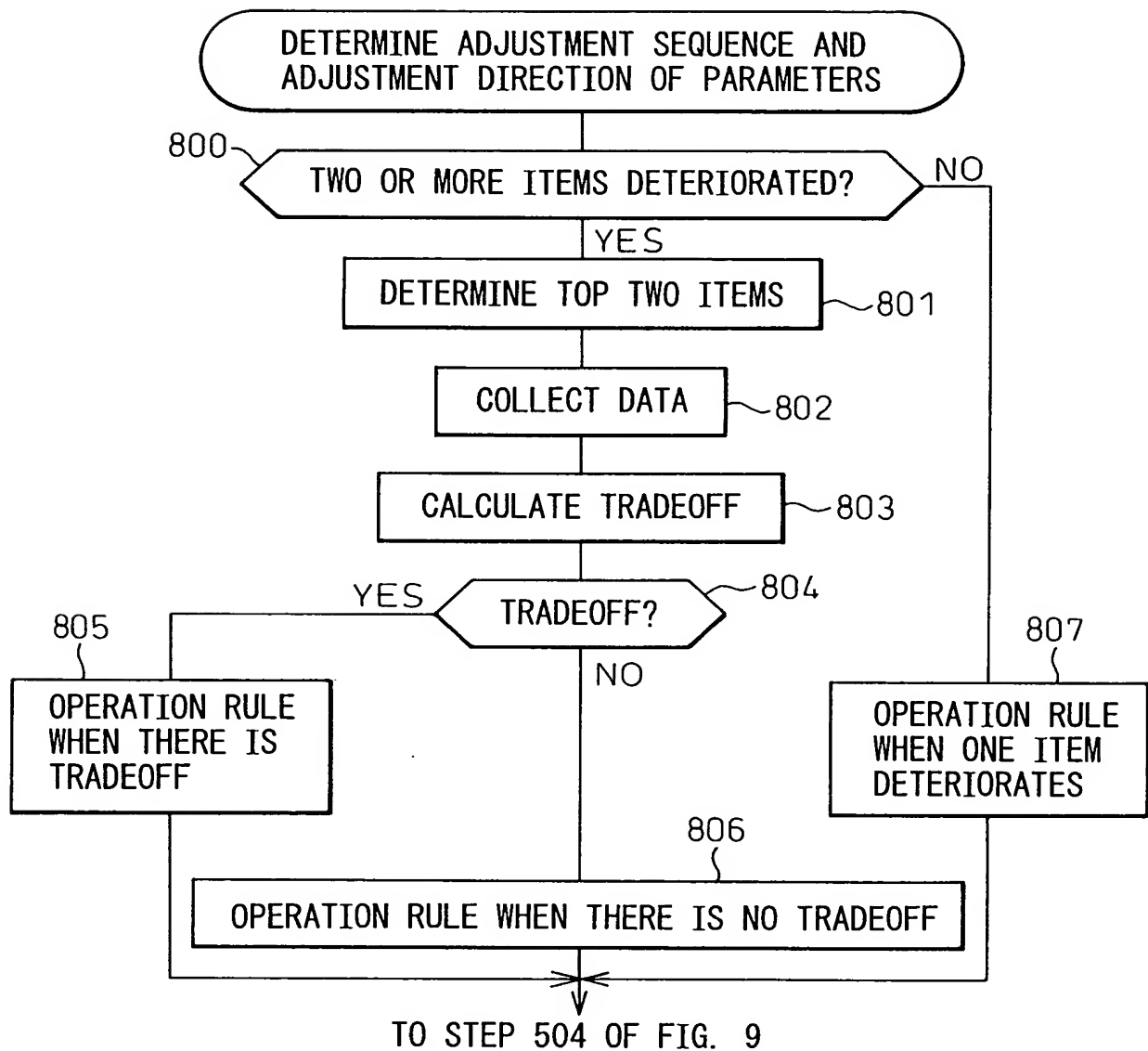


Fig.22

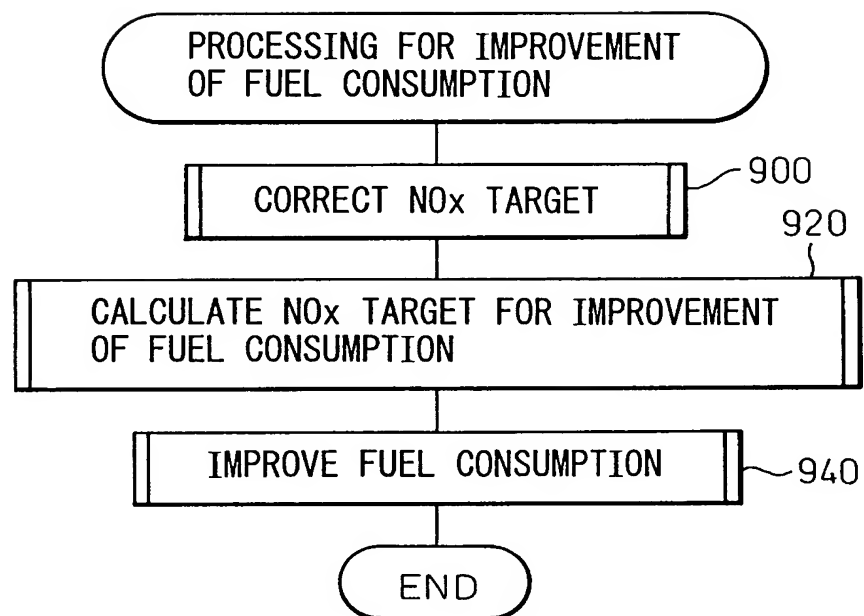


Fig.23A

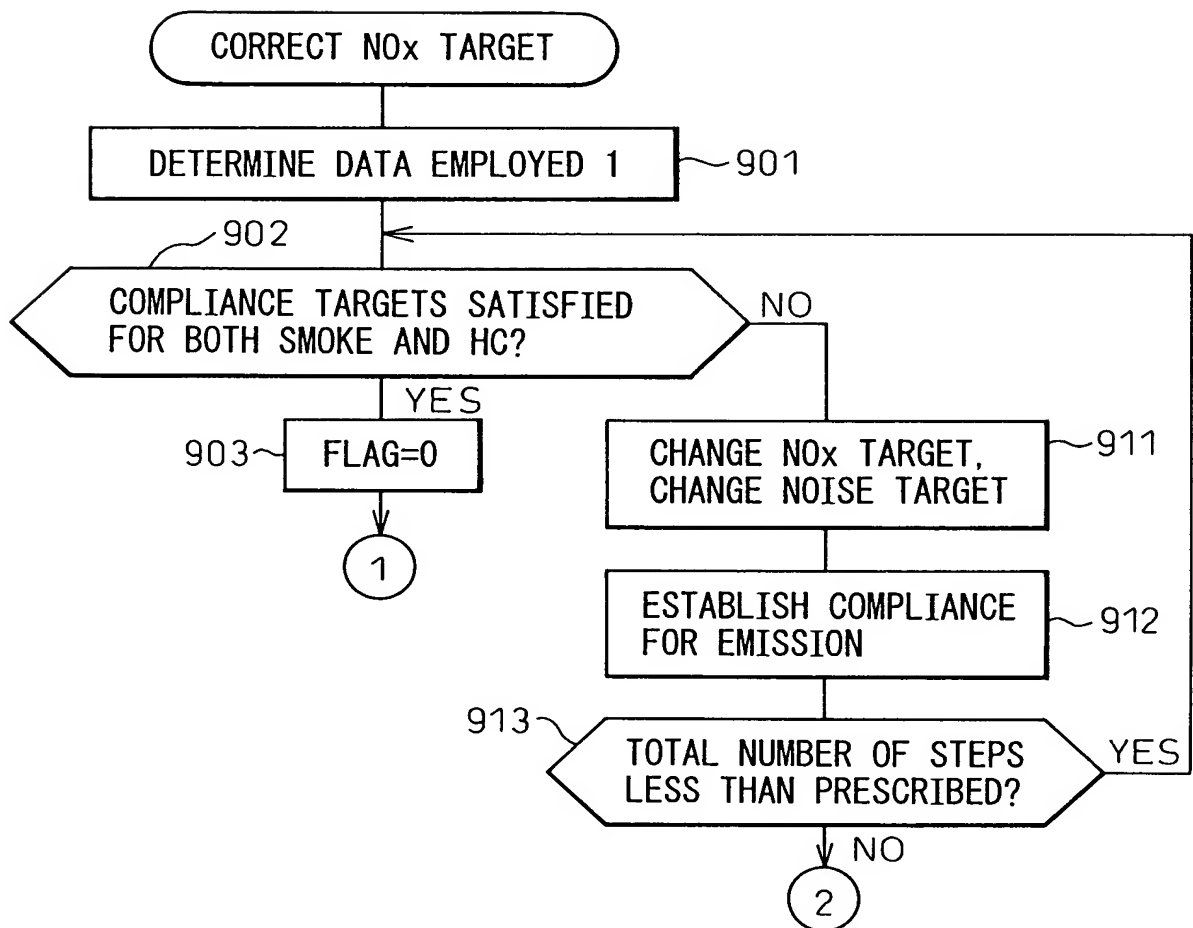


Fig.23B

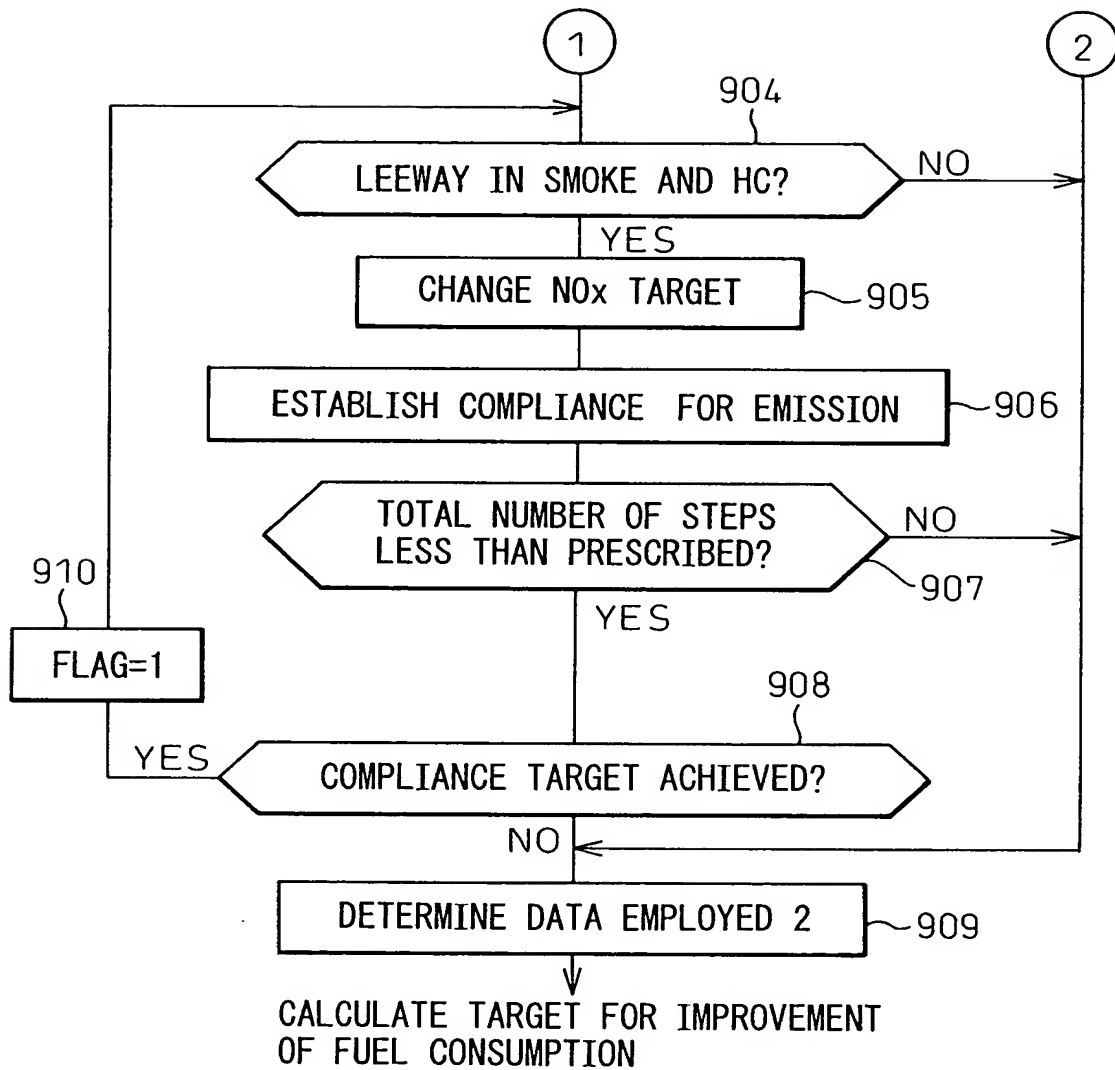


Fig.24

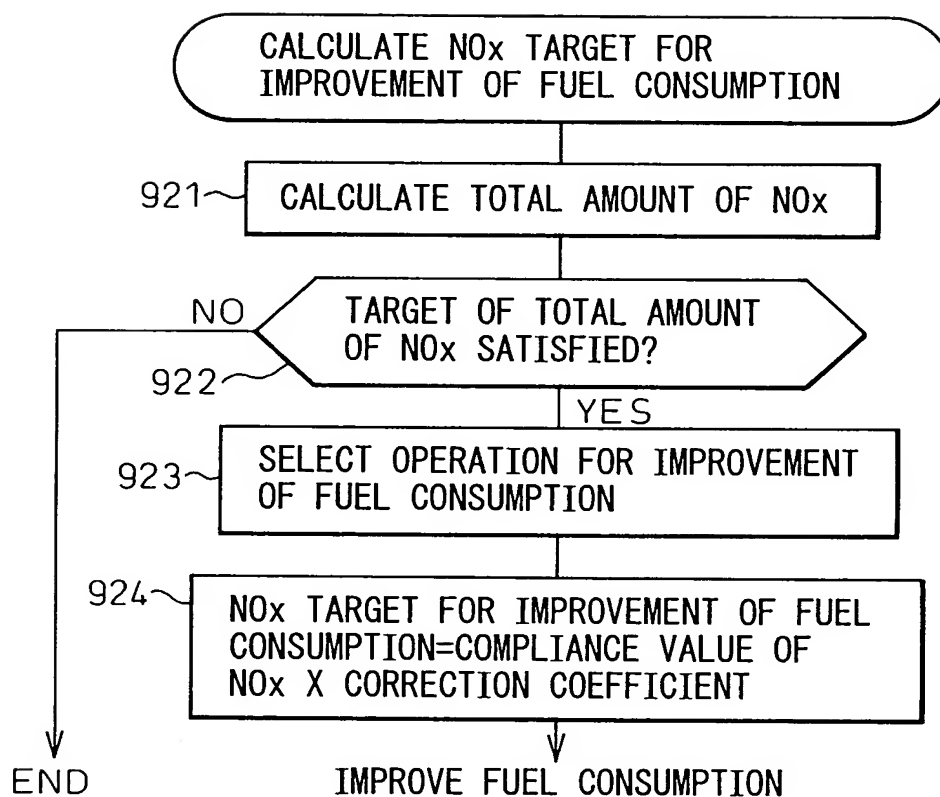




Fig. 25

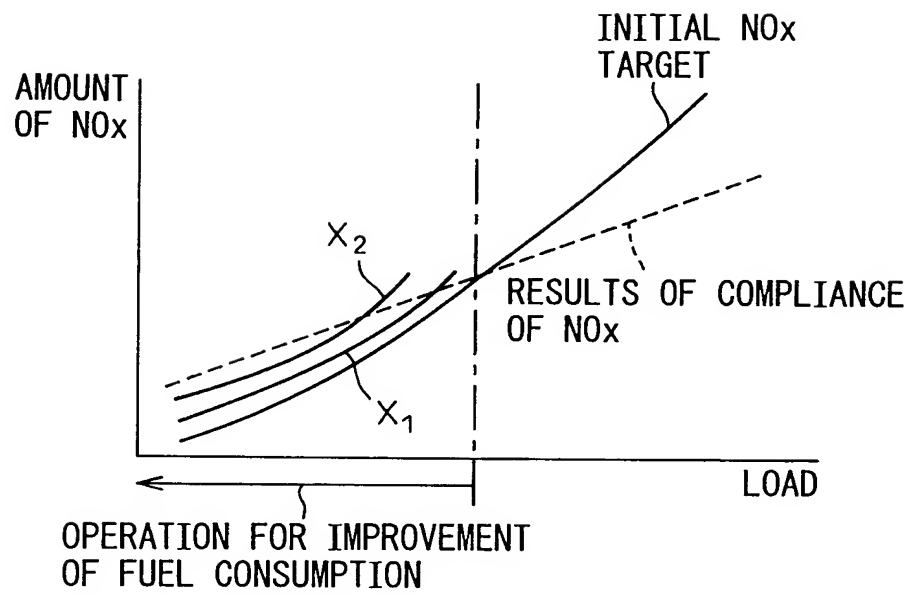


Fig.26A

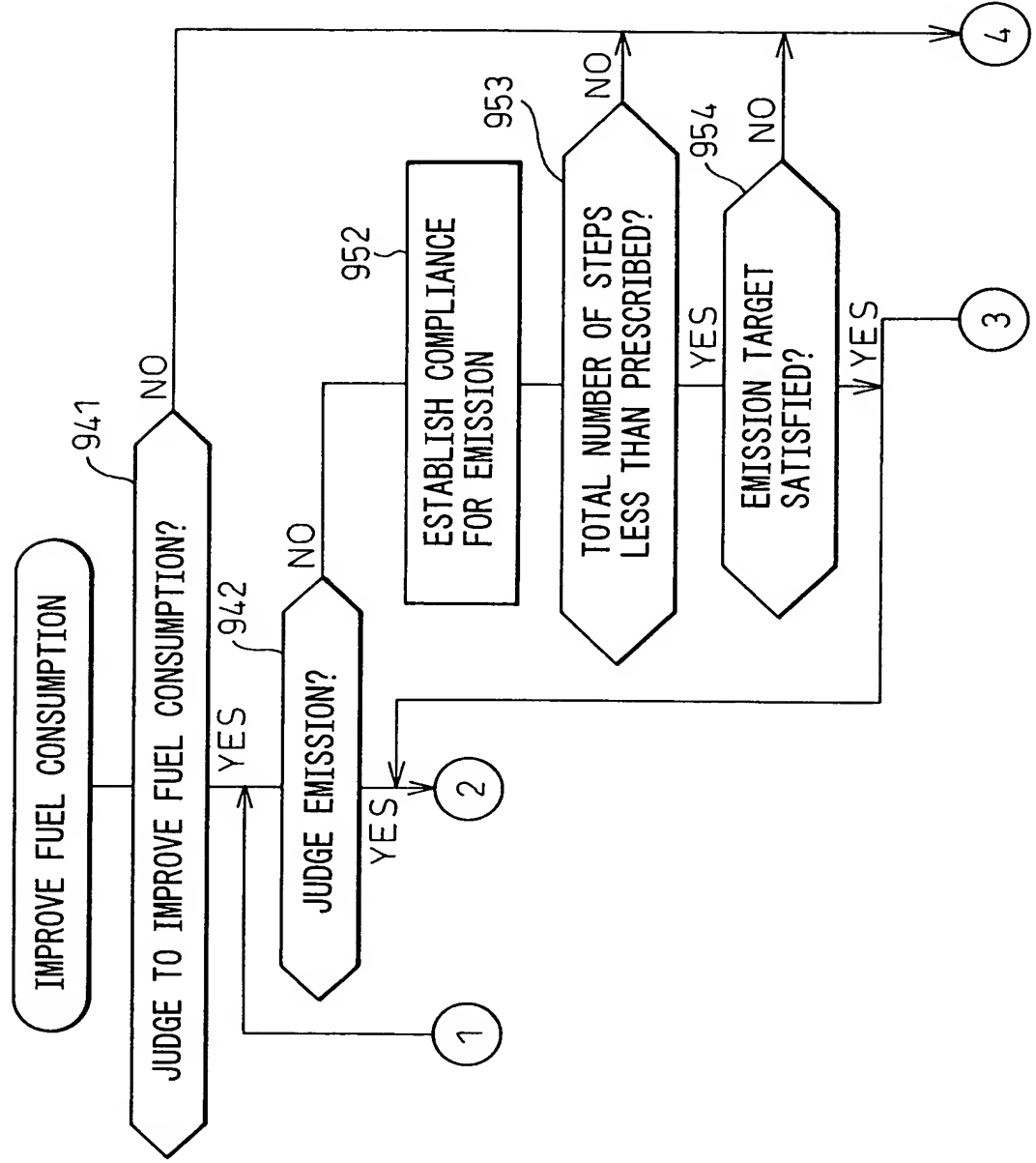


Fig.26B

